Religious Scholars’ Attitudes and Views on Ethical Issues Pertaining to Pre-Implantation Genetic Diagnosis (PGD) in Malaysia

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Abstract Pre-Implantation Genetic Diagnosis (PGD) represents the first fusion of genomics and assisted reproduction and the first reproductive technology that allows prospective parents to screen and select the genetic characteristics of their potential offspring. However, for some, the idea that we can intervene in the mechanisms of human existence at such a fundamental level can be, at a minimum, worrying and, at most, repugnant. Religious doctrines particularly are likely to collide with the rapidly advancing capability for science to make such interventions. This paper focuses on opinions and arguments of selected religious scholars regarding ethical issues pertaining to PGD. In-depth interviews were conducted with religious scholars from three different religious organizations in the Klang Valley, Malaysia. Findings showed that Christian scholars are very sceptical of the long-term use of PGD because of its possible effect on the value of humanity and the parent-child relationship. This differs from Islamic scholars, who view PGD as God-given knowledge in medical science to further help humans understand medical genetics. For Buddhist scholars, PGD is considered to be new medical technology that can be used to save lives, avoid suffering, and bring happiness to those who need it. Our results suggest that it is important to include the opinions and views of religious scholars when it comes to new medical technologies such as PGD, as their opinions will have a significant impact on people from various faiths, particularly in a multi-religious country like Malaysia where society places high value on marital relationships and on the traditional concepts of family.

Keywords Pre-implantation genetic diagnosis · Religious scholar · Attitudes

Reproductive Technologies, Pre-implantation Genetic Diagnosis (PGD) and Religion

Pre-implantation Genetic Diagnosis (PGD) has not only been used for detecting hereditary diseases by couples at risk, it has also been used in the setting of assisted reproductive technology (ART) to reduce the risk of spontaneous abortions in couples carrying translocations (Borkenhagen, Brahler, and Kentenich 2007). However, today with the development of modern technology, the use of PGD includes detecting mutations for susceptibility to cancer, detecting late onset disorders like Alzheimer’s disease, gender selection, and hematopoietic stem cell transplants in sibling donors. This has raised ethical concerns that the technology might change the natural concept of human reproduction, thus leading to societal change in terms of how society views people with genetic diseases or disabilities (Petersen 2005). PGD in particular has stimulated ethical debates regarding the embryo’s moral status (Ehrich, Williams, and Farsides...
technologies (Evans 2006). The term to influence the popular debate over reproductive technologies (Evans 2006). The term “elite” refers to the leaders of groups with power or influence that extends beyond the environment of ordinary men and women. This position allows them to make decisions that have major implications for those who are subject to their influence (Mills 1959). The wording, “religious elite” refers to a particular social group whose emergence is a product of social necessity, as there is hardly any system of belief that does not comprise a group of individuals forming a class of the “selected few” whose task is to provide leadership (Abdul Rahman 2008). Nowadays, religious groups still exert influence in the field of reproduction, such as in the areas of prevention and procreation as well as in issues such as abortion and infertility (Schenker 1992). One of the reasons for this situation, as mentioned by Evans (2006), is that many of these technologies result in the death of embryos or fetuses, linking this debate to the issue of abortion. Many religious groups are opposed to the use of many of these reproductive technologies, especially conservative Christians like members of the Roman Catholic Church. The Roman Catholic Church has explicitly placed limitations on the use of PGD, as the technology results in the destruction of several embryos, thus curbing the reproductive rights of future parents who wish to utilize it. On the other hand, more liberal Christian groups such as Protestants as well as Jewish groups are not totally opposed to all of the reproductive technologies or PGD (Cohen 2002). However, it is worth noting that not every possible use of new reproductive technologies is justifiable and accepted within these contemporary believers, as there is still a belief among Protestant Christians that parents are seen as the protectors rather than the creators of their children.

A biblical defence of the human embryo is based on the idea that human beings are made in the image of God and belong to God. Therefore, every human embryo is sacred, inviolable, and should not be destroyed (Saunders 2006). From a certain perspective within some Christian groups, the appropriateness of technical intervention in human reproduction such as PGD is often characterized as human hubris in “playing God” (Doolin and Motion 2010). Most Christian denominations including Roman Catholics do not oppose the use of medical technologies that heal and improve the embryo’s health, because the treatment is consistent with the dignity of the human being. However, they are opposed to non-therapeutic operations on human embryos, believing that it is wrong to use any kind of reproductive technologies to purposely alter the biological features of human beings as “made to order” children to fulfil arbitrary parental and societal standards of beauty and perfection.

Islamic moral theology is based on scripture in the form of the Qu-ran and the hadiths as the sayings of the Prophet Mohammed (Kurjak, Carrere, and Chervenak 2009). In the Islamic religion, reproductive technologies for treating infertility are encouraged to preserve humankind as long as it is done within the frame of marriage without mixing of genes, involves the preservation of procreation, and includes a necessary line of treatment (Serour 2005). Procreation in Islamic law is limited to a husband and wife. If divorce or death of a spouse occurs, no procreation is allowed, including surrogacy (Husain 2003). This literally means that when performing the treatment, couples are prohibited from accepting sperm or egg donations from third parties and cannot purposely change the features of their future children such as their height, eye colour, intelligence, or hair colour for social reasons but only make changes that are essential for the children’s health. Statements by Abdul Majeed Alaro (2010) support this by stating that if the reason for using any reproductive technologies including PGD is to cure the couple’s infertility or to avoid the transmission of genetic disease to their future offspring, the act is completely permissible provided that no other law of Islam is contravened. In fact, a workshop organized by the International Islamic Center for Population Studies and Research, Al-Azhar University, Cairo, recognized the importance of PGD, but was guarded about its use on non-medical grounds such as gender selection or family balancing (Al-Aqeel 2005). They suggested that each PGD request should be treated on its own merits. This indicates that Islam does not prohibit the use of reproductive technologies either to treat infertility or to avoid the transmission of inherited
genetic diseases, because it is not seen as defiant of God’s will but as discovery of the truth about the capability of couples to have healthy children of their own (Ahmad 2003). Islamic law also allows for the use of excess zygotes remaining from in-vitro fertilization, if donated by the parents, if it is ascertained that they will not be used in an illegal pregnancy (Al-Aqeel 2005). This will allow the medical community to conduct medical research for the purposes of gaining advanced scientific knowledge and thus benefitting humanity.

On the contrary, in Buddhism there is no specific opposition to the use of any reproductive technologies including PGD, because they believe that the creation of life is not fixed and is not an unequivocal process (Frazetto 2004). From the religious point of view in Buddhism, reproductive technologies like IVF are no different from a normal pregnancy wherein the man, woman, and child have a karmic connection (Dutney 2007). In Buddhism, the beginning of life is at conception when streams of consciousness from previously incarnations are enlivened in an egg in the process of being fertilized. Therefore, the question of when the developing embryos “become a person” is not really an issue, because Buddhists believe that an embryo at any stage is considered alive, conscious, and human, though its physical and mental faculties will take time to fully develop (Sinclair 2008). Buddhists hold life sacred from conception and reject embryo reduction because their cardinal virtue of ahimsa precludes any harm (Crawford 2003). Furthermore, Buddhism believes that life can enter the world through many ways and forms of which sexual reproduction is just one, which explains why other modes of procreation have no divinely sanctioned priority. This makes Buddhism’s views of the world and its relationship with mankind unique. Buddhism allows for the use of PGD, as the psychological or spiritual damage caused by caring for a disabled or severely sick child outweigh the negative aspects of discarding the unhealthy embryos (Roberts, 2009). This shows that Buddhists balance their judgements (Keown 2000). Therefore, if a person has a group of embryos and is only going to implant one or perhaps two, it is better to implant those that are known to be genetically healthier, if this knowledge is available. According to Pinit Ratanakul, Buddhism in principle has no difficulty in coping with new scientific achievements such as reproductive genetic technologies. This is because advances in human genetic diagnosis and treatment and prevention of genetic diseases are of great promise and bring hope for the cure of currently incurable diseases which afflict many people (Cornel 2010). The reason for this liberal attitude regarding Buddhist ethics towards genetics is to be found in a general affinity of Buddhism and science, as both see the need for the verification of truth by reason and experience (Cornel 2010).

So far, there is only limited qualitative research exploring the differences in the views of religious scholars on ethical issues arising from the use of PGD in Malaysia. There is a limit to the data on the attitudes and acceptance of religious scholars in Malaysia with regards to PGD ethical issues. Due to this, we feel that there is a need to explore religious scholars’ views, particularly in a country with diverse religious beliefs, because this information could provide us with a rational explanation as to why people from different religious backgrounds have different mindsets on the same ethical issues. According to public opinion research on the connection between religion and reproductive genetics, attitudes to medical genetics and genetic testing are usually voiced with reference to religious beliefs (Allum et al. 2013).

Methods

This study involves six representatives from three religions in Malaysia (P16 to P21): Islam (two Islamic scholars, one from the Department of Fiqh and Usul at the University of Malaya, and the other scholar from the Department of Islamic Development of Malaysia [JAKIM]), Christianity (three Christian scholars, one from Kairos Research Centre [KRC], one from the Christian Council of Malaysia [CCM], and one from the Roman Catholic Church of Malaysia [RCC]), and Buddhism (a consultant from the Young Buddhist Association of Malaysia [YBAM]). Each of the participants was assigned a code (P16–P21) and their personal details removed to ensure anonymity. Participants were chosen using purposive sampling, where they were chosen based on the appropriateness of their background and characteristics for this study. This sampling method is also used to aim at maximizing diversity. All participants were contacted through
email or by phone, and when consent was given for the interview, the time and place was decided. Interviews were conducted at various places according to each participant’s convenience, using in-depth interview techniques based on a set of open-ended, semi-structured questionnaires. Each interview lasted between forty-five minutes and two hours. Interviews used tape-recording or handwritten notes, and data was collected from the interviews, transcribed, and analysed using thematic analysis.

Results

Embryo Moral Status

Almost all religions express ambiguous understanding with regard to the moral status of embryos, and this is also shown in the findings of the discussions with the six participants. For all Christian representatives, the notion of the sanctity of life shows that every human life is sacred and holy; therefore, it deserves to be preserved and respected. P18, a Catholic priest and ethics committee member with the Roman Catholic Church in Malaysia, stated the following:

In Catholicism, it is a firm belief that life begins as soon as the fertilization process starts. Therefore, we view an embryo as life itself that does have moral status and needs to be respected. I do understand that parents want to have a healthy child by choosing to go for PGD, but they need to be aware that at the same time, they have committed a grave sin by destroying not one but several innocent lives.

No matter how imperfect the child will be when he or she is born, as Christian parents they should accept them as who they are and believe in the providence of God. P16, a Research Director for KAIROS, a Christian research centre, made the following comment:

The process of conception itself is a process, which already has a moving direction or development towards personhood. Therefore, it should be allowed to grow and develop naturally. It should be allowed to grow to its potential as a human regardless of how it will turn out to be. It is not appropriate to destroy the lives of these embryos just because they might be disabled. We are destroying what God has created.

In addition, P17, another Christian representative from the Council Churches of Malaysia (CCM), added “Only God has the sovereignty of life over death. It is not right for humans to decide who gets to be born and who doesn’t.” However, Islamic representatives do not view embryos as human life, because in their religion a few-day-old embryo does not have a soul. According to an Islamic scholar and representatives in this study:

In the Islamic law, the spirit or soul of the fetus will only enter the body 120 days or approximately four months after conception. Before 120 days, the embryo is not considered a human life. Therefore, PGD is permitted in Islam. However, the reason to use PGD has to be solely for medical purposes, for example, to avoid the transmission of genetic diseases from parents to the future child.

Concurring with the above statement, another Islamic scholar and representative provides this explanation:

In Islam, life is considered sacred and should be respected. However, the embryo is considered a living human only after 120 days from conception; in this period the spirit (roh) is breathed into him. So you can see, the embryo that is used in PGD is not yet a living human. But this embryo is entitled to respect even before ensoulment and becomes more so after it occurs.

On the other hand, one Buddhist representative believed that life begins during conception in accordance with the teaching of Buddha. Any destruction of life is prohibited:

In Buddhism, as soon as a child is conceived, it is the beginning of life. That makes an embryo a form of life. Destroying it will be unacceptable. In my opinion, PGD is acceptable if the remaining healthy embryos are not discarded. They can be frozen for future pregnancy by the parents, or can be donated for medical research.

In some situations, parents are forced to find an alternative in order to avoid the transmission of genetic diseases to their future children that sometimes can cause severe suffering for the child. Although
prohibiting the action of deliberately destroying the human embryo, Buddhism allows the act if the intention is to save lives and to avoid suffering for others. The parents’ intention to avoid suffering for their future offspring and the effort that they make to prevent such a thing from happening is viewed as a good intention toward another human being. P21 added:

If the decision to use PGD can create happiness for the couple and having a healthy child fulfils their desires, then it is fine. There is no reason to prevent them from using PGD. After all, Buddhism emphasizes the need for relief from suffering, as well as advocating balanced judgment, which means each case is judged based on its own merit. Furthermore, I do not think any parent will purposely choose PGD for other reasons than medical.

**Trying to “Play God” by Changing the Natural Process of Procreation**

“Playing God” is used to demonstrate participants’ concerns, especially in new indications such as PGD for sibling donors and late onset medical conditions: they believe the said practices would increase the demand for PGD to be used for social purposes. Christians are encouraged to believe in the providence of God, and it is based on this teaching that the three Christian representatives discussed their views on this issue. For P16, interfering with God’s work is like interfering with nature, and this might bring unfortunate events to humanity in the future—“The term ‘playing God’ is always associated with the use of PGD because it has the ability to allow parents to select their child. For me personally, I would rather leave it to nature and just accept it as it is.” According to P18, only God has the authority and right to choose who gets to be born and who does not, and who is born healthy and who is not. When humans change their child’s natural genetic characteristics instead of just accepting them as they are, it is considered trying to take over God’s work.

How can you not say that they are not trying to play God when clearly, for me, they have the ability to select and discard embryos. If they are not trying to play God, then there is no need to indulge in such technology, and they would instead just accept the child as it comes.

On the contrary, P19 and P20 argued that they do not view PGD as trying to meddle with nature, but more as God-given knowledge to cure or improve human health. They both feel that if the technology is used for medical purposes and it does not result in harm toward the child, then it is not a matter of trying to play God, but rather an attempt to cure diseases.

If it is done for social reasons, it is forbidden in Islam because there is no necessity. The act of choosing indicated that we are not pleased with what God has given to us. But if it is done to avoid a disease, it is not trying to play God but rather our efforts to ensure that our generation is fit enough and will not spread any genetic diseases.

Using a verse from the Qur-an, P20 explained why she thinks that PGD is God-given knowledge for human-kind with the purpose of improving human life:

O Men! Truly We have created you from a male and female, and made you into nations and tribes that you might get to know and be kind to one another. The noblest of you in the sight of Allah is the one most deeply conscious of Him among you (not accordance with the nobility of lineage or ethnicity). Truly Allah is most knowing. Most Aware (your state and deeds). (Al-Hujurat, 49:13)

In a more liberal opinion, P21 stated:

It is entirely up to the parents whether they want to use PGD. I believe that other people are not in the position to judge them as trying to play God by doing so. I believe that every parent has good intentions when they decide to use PGD; these can include to avoid suffering for their future child and to make everyone happy.

However, the notion of suffering might pose a different understanding for a different individual, a perspective which is witnessed in this study. In his argument showing disapproval for using PGD to avoid human suffering, P18 stated:

How do you define suffering? It is just because the child was born with one leg or because they need to
go through strenuous medical procedures. And who gets to decide whether the child is suffering from his/her medical conditions? Just because a parent believes that a severely sick child could not enjoy a care-free life and enjoy the same thing as other healthy children, it does not justify the act of terminating their life by discarding the embryos.

He added the following:

For humans like you and me … hmm … trying to play God or becoming God-like is very dangerous because human beings are very unpredictable. Greed can overcome anyone, and this will not lead to a good ending. I guess that is why the churches have their doubts on PGD. It’s like playing God. No one can be God or even try to be so because God is God.

**Using PGD in the Quest for a “Perfect Child”**

Christian scholars in this study felt uncomfortable that some parent might use PGD to select their future child’s genetic characteristics in order to fulfil their desire to have the so-called “perfect child.” They do not believe that there is such a thing as a “perfect child,” because every child is perfect, as all humans are made in God’s image. Based on Christian teaching, they described perfection as being without sin and as more related to human relationships with God than physical appearance or state of health. P17 added the following: “PGD might be able to eliminate some genetic disease, but it definitely can’t produce the perfect child because humans alike, be they children or adults, are not meant to be perfect.” Relating healthy children a high quality of life, one participant (P18) argued the following:

There are some people who have some sort of disease which restricts their movement and limits their daily activities or people with a disability that makes them dependent on others but still able to enjoy their life. I do not see anything low about their quality of life. PGD is designed to eliminate diseases and save life, but are we actually saving life when we destroy several lives in the process?

In contrast to the Christian scholars, the two Muslim scholars viewed parents’ desire to provide optimal quality of life for their children to a point where they were willing to try anything, be it medical technology or traditional treatment, as indicating parental love for their children. Furthermore, Islamic religion encourages parents to seek cures or treatment for any diseases that could harm their children or the family lineage. In fact, the effort to find a cure for their children is viewed as the parent’s *ikhtiar*, that is, their enduring endeavour. P20 stated that “Islam acknowledges any new technology and welcomes any effort to upgrade our lifestyle, but should be in line with Islamic teachings without marginalizing the role of God in our life.” However, she has her concerns albeit supporting the parent’s decision to seek cures through PGD:

It is possible that pre-selection of embryos through PGD can lead parents to be perfectionists where they are willing to try anything regardless of the consequences of their actions. This I worry could lead to unforeseen incidents. Therefore, I believe that despite permitting the use of PGD to avoid the transmission of severe genetic diseases from the parent to the future child, clear guidelines should be provided to ensure that PGD would not be misused.

Voicing the same concern on the misuse of PGD, P17 included the possible negative impact of such a desire toward the already deteriorating social attitudes toward disabilities:

I fear that in the future, having a sick child no longer depends on your chance, but on a choice that parents have to make. Parents are being pressured to have healthy children, and parents who choose not to go for PGD are viewed as selfish parents, thus making a decision that they might not want.

**Increasing a Couple’s Reproductive Rights**

Increasing the autonomous right of the parent to make a final decision regarding PGD creates concerns that over time, it might result in a significant increase in the number of PGD requests for a growing number of diseases that may be perceived as very mild or less severe. This can be viewed as an example of the “slippery slope” argument. However, one participant
disagreed (P21) because he believes that all of the parents only wanted to give the best to their children.

Buddhism also teaches about personal happiness. If having a severely sick child causes great emotional and psychological effects on the family, and the only way to avoid this is by using PGD, it is up to the parent to make that choice. What is important is that the treatment does not harm the child, and, in the end, the whole family is happy with the decision.

On the other hand, all Christian scholars in this study believe that parents do not have the sole right to make the final decision regarding PGD, because they believe that embryos, too, have the right to live. Therefore, they do not give the parents the right to terminate the embryos. For example, P16 said that “As Christian parents we should not only think about the end result but also the possible consequences of the entire process toward everyone involved.” Furthermore, P17 stated the following:

A Christian couple or parent should use their conscious mind and their conscience and ask himself or herself, why do they want to use PGD? Do they have other alternatives? To what extent do they want to be involved in a technology that ends up destroying human lives? These are the questions that they need to ask themselves before making the final decision.

In contrast to the Christian scholars, both of the Muslim scholars had no qualm with PGD and the Muslim parents who wish to use it. They, however, do not think that the parents have a complete right to decide. The parents’ decisions have to comply with the religious ruling on the matter. Having said this, they both agree that it is best for the parent to consult their Islamic religious leader or to refer to Islamic law on the matter before they proceed with the decision.

Discussion

Focusing on religious scholars from different religious backgrounds, this paper explores the complex issues related to PGD and contrasts attitudes towards the use of PGD by people from the same faiths. It also provides explanations for the differences in attitudes towards PGD, and it highlights the importance of religious views in a society where religion is very much rooted in the population’s day-to-day decision-making. The themes regarding religious scholars’ attitudes toward PGD include the moral status of the embryo, playing God, the quest for the “perfect child,” and parental reproductive rights.

Most debates on reproductive technologies are almost entirely determined by views on embryonic life or the moral status of the embryo (Evans and Hudson 2007). Discussions on the moral status of embryos and the effects of PGD on embryos become more complicated when religious opinions on the issue are taken into account. This is because the opinions of religious groups on PGD, particularly on the moral status of the embryo, play important roles in the rejection or acceptance of PGD by people from the same faiths (Cole-Turner 2003). According to Howard Jones, Jr. (1999), though not all are practicing believers, religious authority has played a very influential role in moral decisions on reproduction (Mahmoud 2010). Opinions on the moral status of the embryo are varied from one religion to another because of different views on when life begins. In Christianity, these views even differ among people from different Christian denominations. From a religious viewpoint, the Catholic requirement of conjugal sex for conception and conferring "personhood" at fertilization results in a resounding “no” to all reproductive technologies. Using the theological approach regarding the sanctity of human life, the church argues that regardless of its condition the embryo should not be deliberately created and should not be destroyed when not needed. According to Volster (2011), a human being is invested in something of God Himself, namely His spirit, and with the gift of this life, a human being is ensouled. Therefore, as a human being, created and ensouled by God, the embryo is ontologically an object with moral status, and the notion of deliberately destroying a human embryo is tantamount to the deliberate destruction of a human being. Thus, Catholicism disapproves of the use of PGD, even for medical indications, because of the inevitable discarding of embryos (Colombo 2005).

Differing from Catholicism, Protestants are more liberal, accommodating the welfare of the mother and child (Mahmoud 2010). However, Protestant Christian moral theology displays a very wide variation in the embryo’s moral status. Some Southern Baptists in the United States are very close to the
Roman Catholic position, where they accept the concept that prenatal embryos from conception have independent moral status (Kurjak et al. 2009). However, most liberal and mainline Protestant groups such as the Lutherans and Anglicans are not opposed to abortion and do not hold embryonic life to be sacred (Evans 1997). Therefore, they do not think that embryos have independent moral status. These groups tend not to advocate for the legality of reproductive genetic technologies such as PGD, but at the same time, they are not opposed to it. Such contradictory views on the moral status of embryos among Christians from different denominations are also presented in this study, where the participant representing the Catholic churches claims that the conception of human life starts at fertilization. Other Christian scholars believe that human life does not start at conception, but is a process moving toward a personhood. Because of the “lesser status” of the embryo in early pregnancy, they permit embryo reduction on the grounds of a “greater good” for the welfare of some babies (Mahmoud 2010). As a consequence, it is impossible to say with confidence that there is a Protestant account of the embryo’s moral status (Kurjak, Carrere, and Chervenak 2009).

In contrast, both Muslim scholars in this study agreed that a pre-embryo is not alive yet and, therefore, has a very limited moral status, but nonetheless requires respect during handling or discarding. This explains why the scholars do not have any qualms toward Muslim parents who wish to use PGD. Based on Islamic teachings on the notion of ensoulement, the embryo has a life of growth and nourishment like a plant. Once the soul enters the body, it has a sense of perception and volition (which constitutes the basis of human life) (Albar 2002). There is a belief that the soul is “breathed in” to the human embryo on the 120th day after fertilization, and this is when life becomes sacred (Hug 2006). This is explained in the hadiths (the sayings of the prophet Mohammed), which state that the embryo has life at the 120th day from the moment of conception, which is equivalent to 134 days from the last menstrual period. Prior to that moment, the embryo has sanctity, but it does not reach that of a full human being (Al-Aqeel 2005). Based on this Islamic moral theology, it is understood that embryos are given moral status by God during gestation, but not from the embryo’s beginning; this is a form of dependent moral status (Moore et al. 1981). Hence, PGD is allowed among Muslim parents because embryos that are created, used, and discarded during PGD are just a few days old. Islamic law forbids the use of PGD for non-medical purposes such as changing the physical characteristics of the future children based on parental preferences including gender selection.

Buddhism is characterized by a general prohibition against harming or killing other human beings. The scope of being “human” includes prenatal human beings, and human beings are understood to be interconnected (Kurjak et al. 2009). Buddhists hold life sacred from conception and consider the embryo as a live human being, and thus the embryo possesses human dignity and human rights at the time of conception. However, it does not forbid the use of PGD (Crawford 2003), which results in the destruction of pre-embryos. This is because Buddhism advocates balanced judgement, where if medical knowledge is used to help lessen the suffering of others, it is acceptable to use it despite the negative consequences. Using PGD to prevent others from suffering is seen as a parent’s good intention to avoid the future suffering of their unborn child. Helping others who are suffering can also be explained using the Law of Karma, which means that our actions have consequences; helping others to ease their pain today, one may be spared from suffering in his or her after-life.

“Playing God” is a metaphor used to convey the images of humankind transgressing its role in nature and trying to become God-like, refusing to accept God’s ordained limitations on them (Jones 2004). According to Jones (2004), discussing and interpreting “playing God” in PGD tends to reflect hostility towards the procedure rather than presenting a clear rationale. Some religions do not encourage the use of PGD because the process of selecting children is sometimes seen as not accepting what God has given to them (Doolin and Motion 2010). Believing that everything is God’s prerogative, all Christian scholars in this study believe that children should be accepted as they are and parents should not change them into the person that they desire. There are some things that we cannot control or “play God” with but that we have to leave in His hands (Tang 2008). Based on this belief, they think that parents who choose to use PGD are trying to take over the work of God because whether these embryos get to live or not, is decided by another human being. This finding concurs with another study in New Zealand highlighted by Doolin and Motion (2010); the study found that individuals from various Christian denominations claimed that PGD is inappropriate interference with God’s work.
or purpose, an unwarranted and potentially dangerous “meddling” with a divine order that is “out of bounds.” According to Kalfoglou et al. (2005), the main objection to new reproductive technologies, including PGD, is that people do not have the right to decide who gets to be born based on an assessment of potential quality of life (Kalfoglou et al. 2005). The notion is that humans are dealing with technologies in which they should not indulge and creating fear, and this action can lead to negative consequences for human lives.

In Islam, bioethical decision-making is carried out within a framework of values derived from revelation and tradition. It is intimately linked to the broad ethical teachings of the Qur’an, the tradition of the Prophet Mohammad (Sunna), and to the interpretation of Islamic law (Sharia’ha) (Al-Aqeel 2005). In this way, Islam has the flexibility to respond to new biomedical technologies. This is also highlighted in this study, where both of the Muslim scholars interviewed do not think that PGD is an attempt to take over God’s work and do not think that it should be forbidden for Muslim parents unless it is used to purposefully change the future children’s physical features, for example, the colour of the eyes or hair. When PGD is used to avoid the transmission of severe genetic diseases to the couple’s future children, it is permissible because Islamic bioethics emphasizes the importance of preventing illness (Al-Aqeel 2005). This is because PGD is accepted as God-given knowledge to humankind which can be used to heal genetic diseases and save lives. At the same time, Islam encourages its followers to find cures and treatment for any kind of disease (Fadel 2007). According to Fadel (2007), theologically, Islam encourages men to contemplate, explore new horizons, and use all of the things that God created for them, and this includes seeking cures for their diseases. While recognizing the importance of PGD, Islamic jurists are guarded about its use on non-medical grounds such as sex selection for social purposes and suggest that each PGD case or request should be evaluated and treated on its own merits (Serour 2001). On the other hand, Buddhism has no difficulty in coping with new scientific achievements such as PGD because it believes that medical advancements bring great promise and hope to those who really need it (Ratanakul 2010). According to Harvey (2008), PGD is viewed as new medical technology to heal genetic diseases and avoid suffering toward others, and subsequently it brings happiness to the family. In fact, Buddhists see the Human Genome Project and genetic engineering technologies as important ways to relieve human suffering and promote human well-being. The reason for this liberal attitude is not only due to the Buddhist teaching of compassion and good intention but also beneficence, non-maleficence, and other forms of altruism (Ratanakul 2010). Buddhism sees the need for the verification of truth by reason and experience between Buddhism and science.

The use of PGD has brought the topic of perfection to a higher level, resulting in the term “designer baby.” The quest for perfect babies starts as early as the pre-embryonic stage. Through PGD, only the “perfect” embryos are transferred to the mother’s womb (Kings 1999). Therefore, the procedure raises fears and concerns as to the possible misuse of PGD that might lead to full-blown free-market eugenics. Using PGD to select future children based on chosen genetic combinations of the parent received rather ambiguous responses from various religious organizations. Some religious conservatives such as the conservative Christians claim that parental aspirations for the perfect child are to avoid the task of caring for children with special needs, which come with possible burdens and troubles (Abraham 2012). A parent’s desire to use PGD in order to avoid suffering and provide a good life for their child is a poor reason. In fact, perfection is not about one physical or genetic feature but rather about human relationships with God (Tang, 2008). Differing from this view, Islam does not have any qualms with a parent’s desire to provide a good life for their future children. In fact, Islam encourages its followers to contemplate and explore new horizons and to seek cures for diseases (Fadel 2007). Islam encourages its follower to search for perfection in mind, body, and spirit, hence, explaining its acceptance of new reproductive genetic medicines such as PGD. However, Islam places limitations on the use of PGD when it is used to purposefully change the physical outlook of the children, because the parents are not grateful for God’s gift. Similarly, Fadel (2007) stated that while there are no specific fatwa (religious decree) issues, PGD for the enumerated acceptable indications appears to be permissible, while PGD for the questionable and unacceptable indications, including sex selection other than in the context of an X-linked disease, is not. Additionally, Nordin (2011) stated that the spirit of the exhortations of the Prophet Muhammad (SAW) and his companions was to secure normal and healthy babies, protect their early well-being, and endow them with the benefits of good genes from both...
parents and the prevention of congenital malformations and any consequent disabilities. Similar to Islam, Buddhists also permit the parent to use PGD when the medical condition requires them to do so, although Buddhism is against the destruction of human lives, in this case, embryos. According to Harvey (2008), discarding embryos in PGD is permitted when the motive behind the act is to bring into the world a child who will be free of suffering from a severe genetic illness. Good motives or intentions of the parent in such actions reflect the Buddhist teaching of good intentions of doers toward receivers; it places strong emphasis on ethics and non-violence, on the intention not to harm, and compassion.

Reproductive parental rights give parents the sole right to make a final decision regarding reproduction. However, this right might be limited due to religious obligation. This is because some religions do not confer this sole right to parents. In our finding, Muslim and Christian scholars agreed that parents do not have the sole right to make final reproductive decisions, but the two religions make this ruling based on different reasoning. According to Christian belief, another human does not have the right to determine when a child will be born, who the parent will be, which gender the child will be, or when a child will die, as these are all God’s prerogatives (Tang 2008). At the same time, there is a belief that embryos also have as much right as the parent to live; hence, they forbid the destruction of embryos by the parent. On the other hand, Muslim parents are only allowed the right to make their final reproductive decisions if the decisions comply with Islamic law regarding its uses. If parents are given total rights to make decisions concerning reproduction, there are concerns that such laxity might lead to the misuse of the technology and become a “slippery slope” of PGD. Given the existing trends in our society such as the increasing prevalence of cosmetic surgery, it is naive to expect that the misuse of the technology will not happen (Kings 1999).

Concluding Remarks

This study shows that participants’ views on PGD are varied. Findings indicate that individuals from different religious beliefs display different views on ethical issues related to the use of PGD. Ethical and religious responses to concerns on PGD have resulted in a plethora of controversies and debate. The status accorded to the embryo, incorporation with the reproductive rights of the parent, and the welfare of children are mainly responsible for a lack of unanimity in the views on PGD in Malaysia. Despite an ever-expanding theological and philosophical literature on the PGD subject, there has been no closure on a single authoritative account of the independent moral status of the embryo. This is not surprising because given the single method that would be authoritative for all of the markedly diverse theological and philosophical schools of thought involved in this endless debate, closure is impossible. Therefore, it is important to include the views of religious scholars when it comes to new medical technologies, as their opinions have a significant impact on people from various faiths, particularly in a country with a multi-religious population like Malaysia where society places a high value on marital relationships and on the traditional concepts of family.

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Compliance with Ethical Standards

Conflict of Interest This study has no conflict of interest.

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